

---

## ***On the Importance of Broadband Deployment***

Prepared for the Federal Communications  
Commission by the Optoelectronics Industry  
Development Association (OIDA)

January, 2003

---

***OIDA*** Optoelectronics Industry  
Development Association

030123dkb- Adelstein

## ***OIDA Membership (Jan '03)***

**OIDA's mission is to promote optoelectronics worldwide and advance the competitiveness of its members.**

* 3M	EMCORE	Optical Horizons
Agere	Fairchild Imaging	OptiComp
* Agilent	* GELcore	Panasonic Boston Lab
Agility	* GE	Photonics Research Ontario
Applied Optoelectronics	Honeywell	Rohm & Haas
AXT Optoelectronics	Ignis Optics	RSoft
Boeing	Incubic	Sandia
BTG	* Infineon	Schott Optovance
BU Photonics Ctr.	INO, Canada	Sigma Technologies
Calient Networks	* Intel	* Telcordia
Canadian Microelectronics	JDS Uniphase	TRA-CON
Celestica	kSARIA	UCLA
* Corning	* Kodak	Uniroyal
CREE	Light Wave Venture	Univ. of NM, CHTM
CRI	* LumiLeds	Univ. of NC, COOC
Digital Optics	New Focus	Univ. of Rochester, Optics Institute
Dow Corning	NRC, Canada	Universal Display
* DuPont	OpNext	Verrillon
EM4 Photonics		

\* Voting Member

---

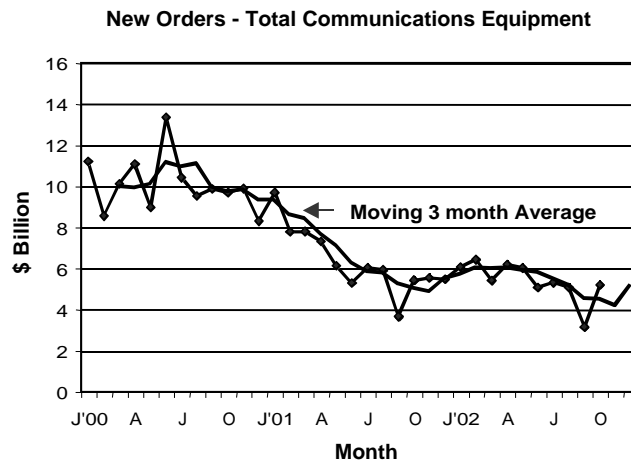
***OIDA*** Optoelectronics Industry  
Development Association

030123dkb- Adelstein

## The Communication Value Chain

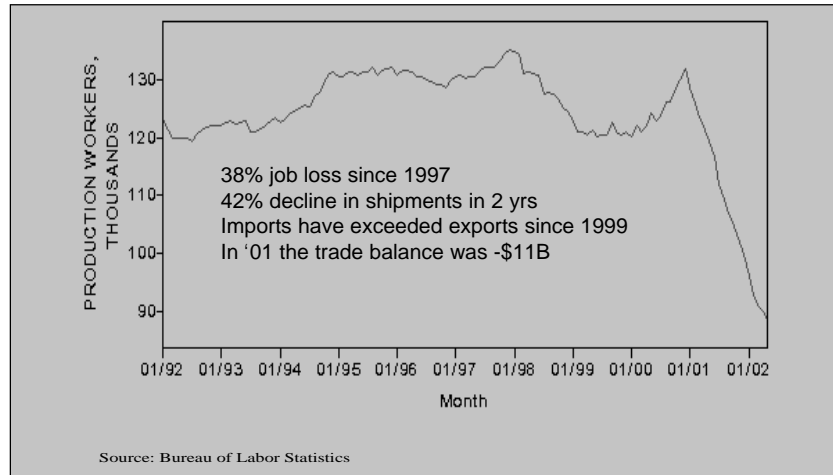
1. Service/content providers  
e.g. Time Warner-AOL, Disney, etc.
2. Carriers  
ILECs (Verizon), CLECs (Williams), Long distance (AT&T), Cable TV (Comcast), etc.
3. System/equipment  
e.g. Agilent, Cisco, etc.
4. Component/module  
e.g. Corning, JDS Uniphase, Triquint, etc.
5. Materials and process equipment  
e.g. Applied Materials, KLA-Tencor, etc.

## Communications Equipment Orders - U.S.



Source: US Census Bureau

## ***Production Workers in Communications***



**OIDA** Optoelectronics Industry  
Development Association

030123dkb- Adelstein

## ***“Broadband” in the U. S.***

**Modest Performance**

(>200 kbs, instead of 10-100 mbs)

**Sparsely deployed**

(The carriers have no incentive to deploy)

**OIDA** Optoelectronics Industry  
Development Association

030123dkb- Adelstein

## ***Broadband Outside the US***

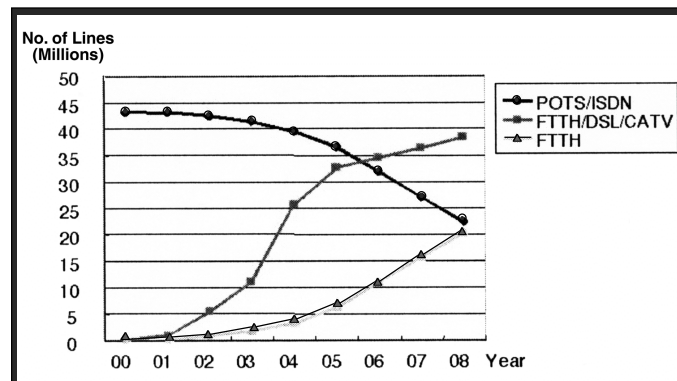
### ■ National initiatives - long range goals

- Japan
- Korea
- Sweden
- Singapore

### ■ Preparations - field trials

- China
- Netherlands

## ***The Broadband Market Trend in Japan***



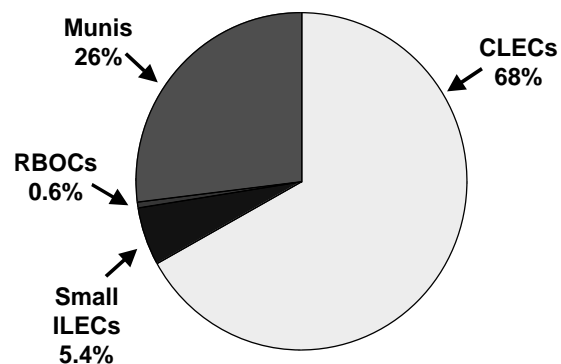
Source: InfoCom Research, Inc, H. Shinohara, NTT

## Goal for Foreign Broadband Initiatives

Country	Mb	Penetration	Year
Korea	20	70%	2005
Japan	10-100	50%	2008
Sweden	5	98%	2005
USA	10 - 100	?	?

## Percent of FTTH Deployment by Providers

Less than 1% of installations are provided by RBOCs who are required to unbundle their network



Source: Corning Incorporated and "Fiber to the Home and Optical Broadband 2002", Render, Vanderslice & Associates (presented at the Fiber-to-the-Home Conference, New Orleans, LA, October 15, 2002), p. 80.

## ***Recommendations***

---

- Generate regulatory framework for a national initiative
- Relieve new packet-based technology such as FTTH from unbundling obligations
- Provide CLECs the same level of unbundling access that they have today
  - No change in current UNE rules for existing copper and hybrid facilities
  - In new builds, no requirements to deploy copper to subscribers served by FTTH
  - In overbuilds, copper remain connected where subscribers elect FTTH with no operational costs incurred until a CLEC access request